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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,711	08/02/2001	Chiaki Kasada	KASADA-4	6303

7590 01/10/2006  
Browdy and Neimark  
624 Ninth Street NW  
Washington, DC 20001-5303

EXAMINER
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ANGEBRANNDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 01/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/890,711

**Applicant(s)**

KASADA ET AL.

**Examiner**

Martin J. Angebrannt

**Art Unit**

1756

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/07/05 & 10/24/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 6-8, 10-12, 15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-8, 10-12, 15 and 18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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1. The response of the applicant has been received and made of record. Responses to the arguments of the applicant are presented after the first rejection to which they are directed. Claims 6-8,10-12,15 and 18 are active. Rejection of the previous office action not repeated below are withdrawn based upon the amendments to the claims and corresponding arguments. The language "a substituent selected from the group consisting of ...." has been interpreted as precluding other substituents from outside the recited group.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6-8 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 6, "cyans" should read - - cyano- - .

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6,7,10 and 11 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Miura et al. JP 63-256945.

See examples in table 1, which use dye B (lower left column ,page 6) which is disclosed as having an absorption maxima of 387 nm together with another dye. Dyes 14,9,3,7,13 (pages 2-3) used in the examples in table 1 are also within the scope of coverage sought.

Benzothiazole, indole and benzopyridyl are phi 1 moieties.

The cited dyes are within the recitation of the claims. The applicant argues as if photographic materials do not record optical information through exposure to light and therefore are not optical recording media. If the applicant wishes to exclude photograph materials, then the applicant should recite structure, such as a disc substrate. To preemptively address the issue of the ability of photographic emulsions to record digital information, the examiner points the applicant to Russell '031 at 5/38-40, which describes the data layers as being made of photographic film and applied to a disc substrate. The applicant may also wish to include limitations concerning the grooves as smaller pitches of the grooves will preclude use of the media with longer wavelength lasers, which addresses the issue of Namba et al. '231 applied below. The issue of the use of a laser to record information is an intended use noting that to photosensitive materials, light is light and if it is sensitive to that wavelength, the light source is of no importance to recording analog or digital information.

7. Claim 6 is rejected under 35 U.S.C. 102(b) as being fully anticipated by Miura et al. JP 64-184441.

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See examples in table 1, (the last two dyes in the right hand column on page 3) are embraced by the claim language.

8. Claims 6 and 10 are rejected under 35 U.S.C. 102(b) as being fully anticipated by JP 51-018530.

See example using uppermost dye shown in the lower left hand column on page 2, which is disclosed as absorbing a 430 nm.

9. Claims 6,7 and 10-11 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Shiba et al. '832

See examples in tables 1 and 2 (col. 51-52) using dyes II-1 through II-6. (col 39-42) and Dyes III-7, III-8 and III-13 (col. 41-48) are also embraced by the coverage sought.

10. Claim 6 is rejected under 35 U.S.C. 102(b) as being fully anticipated by Hayami et al. '862

See examples 2 and 4, which will also include the ring open structure similar to that shown in example 16.

11. Claim 6,7 and 10-11 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Okusa et al. '046.

See dyes II-25,II-28, II-32, II-53,II-56,II-58,II-66,III-2, III-14,II-15,III-21,III-31,III-32,III-44,III-45. Example 115 in table 1 uses III-44. These are sensitizing agents (51/24-33). Note that these are shown to be superior to the comparative compounds CR-1 through CR-5 which are p-dialkyl substituted. See various moieties (40/39-55)

12. Claim 6-8 and 10-12 are rejected under 35 U.S.C. 102(b) as being fully anticipated by JP 60-083892

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See examples 1-5 in table 1 on page 22. These use dyes D-17 and D-21 on page 7. The singlet oxygen quenchers both absorb in the visible and act to stabilize the other dyes.

13. Claims 6 and 10 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Gotze et al., '644.

See example 3, which is sensitizer with a comparison sensitizer (col 12).

14. Claims 6,7 and 10-11 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Shiba et al., '505.

See example 2, which uses the sensitizer shown in column 10, with other sensitizing compounds 8, or 16 (col 10).

15. Claims 6-8,10-12,15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-232995, in view of Okusa et al. '046.

JP 60-232995 teaches the use of dyes of formula II, where Y<sub>2</sub> is a heterocyclic moiety, L<sub>1</sub> and L<sub>2</sub> are CH, l<sub>2</sub> is 1, R<sub>21</sub> is alkyl and R<sub>22</sub> is a monovalent group (page 7). The use of the singlet oxygen quenchers shown on pages 19-21 is disclosed. Examples 1-10 show mixtures of dyes in the recording layer (table 1, page 32)

It would have been obvious to modify examples 4 and 5 in table 1 on page 32, which use dye D20 and D24, which include styryl dyes D<sup>+</sup> II-2 or D<sup>+</sup> II-7 respectively (page 9 and 21), where the monovalent moiety is a dialkylamino group, by replacing the dialkylamino moieties with halogens, cyano or an alkoxycarbonyl moiety with a reasonable expectation of forming a useful optical recording medium which has an improved sensitivity over that of examples 4 and 5. The examiner had a n oral spot translation made, if the applicant has an English translation made, the examiner would appreciate a copy with the subsequent response.

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16. Claims 6-8,10-12,15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 60-232995, in view of Okusa et al. '046, further in view of Namba et al. 231, JP 51-018530 and Miura et al. JP 63-256945.

Namba et al. 231 teaches the sensitization across the entire spectrum by using mixtures of dyes to allow various lasers to be used with the recording medium. This allows the medium to be used with any player.

In addition to the basis provided above, the examiner cites Namba et al. 231 to establish the desirability of having optical recording media which are sensitive at about 400 nm and JP 51-018530 and Miura et al. JP 63-256945 are cited to support the examiner's position that the dyes inherently absorb in this range and thereby serve to sensitize the recording media to this wavelength range.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

JP 06-300913 describes the use of CI basic Orange 22 in optical filters.

Colour Index, Third Ed (1972) pp. 4438, establishes the composition of CI Basic Orange 22.

Vansant et al., "Azastilbenes.. 1 Syntheses, Characterization and Structure", J.Org. Chem., Vol. 45(9) pp. 1557-1565 (1980) teaches various compounds within the scope of coverage sought and that they undergo photochemical reactions including cis-tran isomerization. (page 1557).

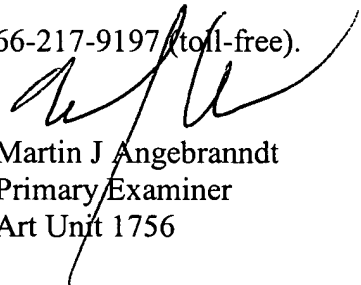
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Faller, et al., "Some merocyanines with chelating properties", J. Org Chem., Vol. 29 pp. 3450-3452. (11/1964) teaches various compounds within the scope of coverage sought and that they are dyes.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebranndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J. Angebranndt  
Primary Examiner  
Art Unit 1756

12/30/2005